PRODUCT PERFORMANCE / EFFICACY REVIEW

Mark Suarez, Entomologist - IB

DATE:	21 June 2007
EPA REG. NUMBER:	279-3240
PRODUCT NAME:	Lawn Insect Control
REGISTRANT:	FMC Corp. – Agricultural Products Group
PM:	George LaRocca, PM 13
REVIEWER:	BeWanda Alexander
DECISION #:	369501
DP BARCODE:	338481
ACTION:	R34
ACTIVE INGREDIENT(S):	128825, Bifenthrin.....0.115%
TYPE:	Granular
OPPTS GUIDELINE(S):	810.1000 810.3000 810.3500
MRID:	47086001
GLP ?:	No.
SITES:	Outdoor.
PESTS:	Ants (Carpenter, Pharaoh, Fire, and Harvester), Centipedes, Chiggers, Fleas, Scorpions, Spiders, Ticks
STUDY APPLICATION RATE:	4 lbs/1000 ft^2 (0.46 lb AI/)
LABEL APPLICATION RATE:	1 to 4 lbs/1000 ft^2 (0.115 to 0.46 lb AI/A)

STUDY SUMMARY(IES):

MRID 46566201. Sommer, WT (2007) Residual Control of Bifenthrin Granules. Unpublished report prepared by FMC Corporation. 98 p.

The MRID contains a response/rebuttal to comments provided in a previous efficacy review (dated 10 January 2007). In said DER a number of deficiencies were noted. The registrant has addressed those issues point-by-point. For ease of review, each point is discussed independently below. The original comments are in normal text, the registrant's response is *italicized*, and any subsequent comments are **bolded**.

The submitted data are partially adequate to validate the 3-month residual claims conditionally accepted on 25 January 2005.

1. The only public health pest for which field data were provided was an unspecified harvester ant species (*Pogonomyrmex* sp.).
   The harvester ant was identified as Pogonomyrmex californicus. *Additional data were cited in support of the American dog tick,* Dermacentor variabilis, *brown recluse spider,* Loxosceles reclusa, *and scorpion*, Vaejovis spinigeris .
   The information provided about the species of harvester ant is acceptable.
   The data cited for support of 3 month residual claims against additional species are acceptable. The data cited and submitted indicate that the product remains effective against the red imported fire ant, *Solenopsis invicta*, American dog ticks, brown recluse spiders, and scorpions for up to 3 months, when applied at a rate of 0.2 lb ai/A or greater (4 lb/1000 ft^2).
2. The design of the field trial was deficient.
   a. Insufficient detail was provided about the experimental conditions, if the treatment plots were subject to weathering, and what those conditions were.
      The registrant provided detailed weathering information.
      The additional meteorological data are acceptable.
   b. The plots were soil only, not grass.
      The registrant has provided an explanation for choosing plots designed in this manner. In essence, the registrant argues that due to increased exposure to UV radiation and lack of organic matter onto which to bind.
      Although the registrant's points may be valid, the removal of a dimension from the architectural complexity of the habitat is probably more important.
   c. The plots were set up in such a way that the movement of pesticide out of the plot would be restricted.
      The registrant countered by saying that the movement of the a.i. within the plots would be similar to that in turf applications.
      The position of the registrant was not supported by data.
   d. The highest label rate listed was used, not the lowest (1 lb/1000 ft^2).

The season long control claim is applicable to only the highest label rate (4 lb/1000 ft^2 or approximately 0.2 lb ai/A).

The 3-month residual claim is acceptable, if it is clearly indicated, through a direct statement or footnote present on the same panel as any 3-month residual claim, that it applies only to the pest species for which data have been provided (i.e., red imported fire ants, American dog ticks, brown recluse spiders and scorpions) and only at the 4 lb/1000 ft^2 application rate.

3. Laboratory trials are not adequate to support this type of claim (i.e., outdoor use residual).
   The registrant argued that MRID 46566201 included data demonstrating a strong correlation between laboratory trials and field trials.
   The data in MRID 46566201 are adequate to support the 3month residual claims for red imported fire ants, American dog ticks, brown recluse spiders and scorpions.
4. The mound treatment for fire ants study should follow-the 810.3100 guideline.
   The registrant has removed residual claims for fire ant mounds.
   No response necessary.

ENTOMOLOGIST'S COMMENTS AND RECOMMENDATIONS

1. The data provided are adequate to support a residual claim of *up to 3-months* is acceptable, if it is clearly indicated, through a direct statement or footnote present on the same panel as any 3-month residual claim, that it applies only to the pest species for which data have been provided (i.e., red imported fire ants, American dog ticks, brown recluse spiders and scorpions) and only at the 4 lb/1000 ft^2 application rate.

2. The following label claims require modification or removal
   a. 2X more coverage* - *vs. Standard 5,000 sq. ft Bags – remove, ambiguous
   b. Kills (controls)…100+ (or over 50) insects – modify, "Kills(controls)… 100+ (or over 50) *listed* insects"
   c. Kills more insects – remove, comparative
   d. Long lasting!! – modify to indicate conditions of #1 above.
   e. One application keeps killing lawn bugs for an entire season/One application kills/controls for up to three months/ One (1) application… season…/Apply once for season long control/Season long control– modify to indicate conditions of #1 above and indicate that a season is 3 months, where season long claim is made.
   f. Statements indicating that people and pets may re-enter "immediately" after watered and dry are potentially misleading – remove "immediately" from statements.

Enclosure
002517-00150, -00151-ER